

MANAN SETHIA

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Computer Science undergraduate at NTU Singapore, building data pipelines, software systems, and security projects.

Education

Nanyang Technological University

Bachelor of Computing (Hons) in Computer Science

Singapore

Jul 2026 – Present (Expected 2030)

- Specialisations: Cyber Security, Artificial Intelligence.
- NTU Science and Technology Undergraduate Scholar.

Krishna Public School, Kamal Vihar

Senior Secondary (PCME + Computer Science)

Raipur, India

2014 – 2026

Technical Skills

Languages & Toolchains: Python, C/C++, Java, JavaScript/TypeScript, SQL, C#/.NET, Kotlin, Swift; npm, Maven/Gradle, NuGet, SPM

Data & Pipelines: ETL, REST APIs, async/batch ingestion, entity resolution, schema normalization, pandas, SQLite, Excel/CSV, SciVal, Scopus, OpenAlex, ROR, Wikidata

Web & Frontend: Jekyll, Liquid, GitHub Pages, WYSIWYG editor engineering, responsive design, Sass/SCSS, SEO, accessibility, semantic HTML

Development & AI: Flask, Django, Node.js, HTML/CSS, scikit-learn, OpenCV, PyTorch basics, RAG, MCP, pytest, Playwright

DevOps & Systems: Git, GitHub Actions/CI/CD, Docker, Bash/zsh, SSH, cron, Nginx; Ubuntu, Debian, Fedora, Arch, Kali Linux

Security, Apps & Hardware: Android Studio, Xcode, Wireshark, Burp Suite, Nmap, Raspberry Pi, ESP32, Arduino, sensors, robotics

Experience

Nanyang Technological University

Singapore

Webmaster & Frontend Developer, Wee Kim Wee School (WKWSCI)

Oct 2026 – Present

- Built and maintain official Jekyll/GitHub Pages websites for Prof. Kwan Min Lee (Korea Foundation Endowed Chair Professor), the Korean Studies Lab (KSL), and the Human-AI Interaction Lab (HAIL) at WKWSCI.
- Engineered a custom, zero-dependency in-browser WYSIWYG visual studio editor featuring inline text formatting, floating context inspectors, responsive device canvas simulation, and Git-backed draft staging—enabling faculty to update research, publications, and news directly via browser without code manipulation.
- Implemented modern academic design systems utilizing Plus Jakarta Sans typography, refined academic palettes, structured metadata schemas, and zero-layout-shift asset optimization across all lab portals.

IT Subcommittee Backend Engineer, NTU SCDS Club

Oct 2026 – Present

- Architect and engineer backend services, database schemas, RESTful APIs, and cross-platform integrations across all active club software projects and student initiatives under the NTU Students' Computing and Data Science Club.
- Build reliable internal tooling, database workflows, and automated deployment pipelines supporting SCDS hackathons, tech workshops, and community data science platforms.

Technical Director, TGIFHacks (NTU Open Source Society)

Sep 2026 – Present

- Direct technical planning, architecture, and logistics for hackathons, hardware and software builds, workshops, and competitions.

Technical Subcommittee Member, NTU Sentinels

Aug 2026 – Present

- Contribute to cybersecurity initiatives, capture-the-flag (CTF) problem setting, and vulnerability analysis.

Data Analytics & Engineering Assistant, Office of Data and Analytics

Jul 2026 – Present

- Build automated Python ETL and identity-resolution pipelines linking fragmented bibliometric sources (SciVal, Scopus, OpenAlex, ROR, Wikidata) with rate-limit handling, schema normalization, and database delivery at scale.
- Developed 241 modular scripts, matched 50,000 UBC researcher profiles, and linked 45,801 Stanford Top 2% researchers across 5.2M records delivered as clean SQL database dumps and CSV collections.

Buildabot Labs Private Limited

May 2026 – Aug 2026

Chief Technology and Innovations Officer (CTIO) (Subsidiary of First Step Innovations)

Raipur, India

- Led technology strategy and engineering; maintained database systems and backend servers, developed company website, integrated a RAG AI assistant, and architected an emulation playground for virtual project testing.

First Step Innovations (FSTI)

Apr 2026 – Jul 2026

R&D Intern (Research & Development)

Bilaspur, India

- Delivered full-stack projects: e-commerce web application, AI career counselling platform, and interactive drone assembly simulator web app; handled technical documentation and QA testing across all deliverables.

Krishna Public School, Kamal Vihar

Apr 2016 – Mar 2026

Student Leadership, Technical Development, and Mentorship

Raipur, India

- **Headboy, Student Council (Jul 2025 – Feb 2026)**: Co-led 97-member council across 18 clubs; directed XPLORA, KPSMUN, and Annual Function.
- **Problem Setter, I-Code (Aug 2024 – Oct 2025)**: Designed algorithm and logic questions across difficulty levels for coding competitions.
- **Advisor & Coordinator, Xplora (Nov 2022 – Nov 2025)**: Directed school technology fest planning, outreach, and competition design.
- **Innovator & Mentor, ATL Club (Jul 2022 – Mar 2026)**: Prototyped IoT and embedded systems; mentored junior robotics projects.
- **Technical Leadership, Coder's Club (Jul 2019 – Mar 2026)**: Conducted workshops on competitive programming, ML, and cybersecurity.
- **Quiz Organizer & Mentor, QPL (Apr 2016 – Mar 2026)**: Organized school quizzes and represented KPS in national events.

Projects

MRIDA | *Multipurpose Real-time Integrated Digital Analyzer*

2023 – 2025

- AI-powered Raspberry Pi soil-health analyzer with real-time sensing, weather alerts, emergency messaging, and voice guidance.
- Winner at Data & AI Talks; selected for Youth Ideathon Top 1,000, INSPIRE MANAK DLEPC, and Junior SIH national presentation round.

MATRIX | *Desktop Voice Assistant*

2021 – 2022

- JARVIS-inspired voice assistant built in Python and Tkinter with speech recognition, live weather/news integration, and hand-drawn GUI.

Certifications

- **Google Cybersecurity Professional Certificate** (Coursera)
- **IBM Ethical Hacking with Open-Source Tools** (Coursera)
- **Programming & DSA**: CodeChef certifications across Python, Java, C, and C++

Honors & Awards / Selected Achievements

- **Gold & Bronze Medalist** at International Earth Science Olympiad (IESO) 2024; represented Team India in Beijing
- Selected for **12-week international research program** on Quantum Computing (BeyondQuantum 2025)
- Secured **AIR 10** in Hewlett Packard Enterprise (HPE) Codewars 2025 among 6,000+ participants
- Secured **AIR 17** in IIT Madras Shaastra Programming Contest 2026 among 18,000+; **National Finalist**
- **ZCO 2024 Zonal Topper** and **INAIIO 2025 Stage 2 Qualifier**
- **Silver Medalist**, Future Tech Olympiad 2026 by 1M1B and IBM SkillsBuild
- **Winner**, Code 2 Champions at ITM University Raipur (only school student in the field)
- Qualified for **INESO 2025 National Camp** in the Indian Earth Science Olympiad selection programme
- National runner-up in CBSE Heritage India Quiz and Ultimate Sports Quiz; regional winner at SBI Scholar Quiz and IIM Bhilai Materials Quiz